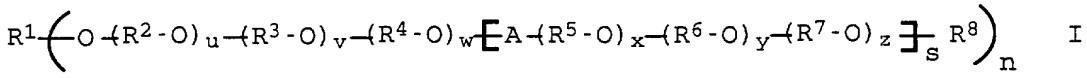
We claim:

1. A process for preparing graft copolymers of polyvinyl esters by polymerization of

a) at least one vinyl ester of aliphatic C_1-C_{24}-carboxylic acids in the presence of

b) polyethers which are solid at room temperature and have the general formula I



I

in which the variables have the following meaning, independently of one another:

R^1 hydrogen, C_1-C_{24}-alkyl, R^9-C(=O)-, R^9-NH-C(=O)-, polyalcohol residue;

R^8 hydrogen, C_1-C_{24}-alkyl, R^9-C(=O)-, R^9-NH-C(=O)-;

R^2 to R^7

$-(CH_2)_2-$, $-(CH_2)_3-$, $-(CH_2)_4-$, $-CH_2-CH(CH_3)-$, $-CH_2-CH(CH_2-CH_3)-$, $-CH_2-CHOR^{10}-CH_2-$;

R^9 C_1-C_{24}-alkyl;

R^{10} hydrogen, C_1-C_{24}-alkyl, R^9-C(=O)-;

A $-C(=O)-O-$, $-C(=O)-B-C(=O)-O-$, $-C(=O)-NH-B-NH-C(=O)-O-$;

B $-(CH_2)_t-$, arylene, optionally substituted;

n 1 to 8;

s 0 to 500;

t 1 to 12;

u 1 to 5000;

v 0 to 5000;

w 0 to 5000;

x 1 to 5000;

y 0 to 5000;

z 0 to 5000

c) and, where appropriate, at least one other monomer

using a free-radical initiator system, wherein liquid polyalkylene glycol is used as solvent for the free-radical initiator system.

2. A process as claimed in claim 1, wherein the solution of the free-radical initiator system is added continuously throughout the polymerization reaction time.

3. A process as claimed in either of claims 1 and 2, wherein liquid polyethylene glycol is used as solvent for the free-radical initiator at room temperature.

4. The use of the polymers prepared by a process as claimed in any of claims 1 to 3 as coating agents, binders and/or film-forming excipients for pharmaceutical dosage forms.

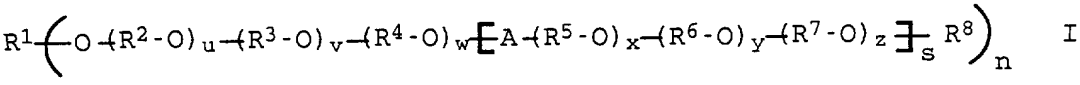
5. The use of the polymers prepared by a process as claimed in any of claims 1 to 3 as additives to cosmetic, hygienic and/or dermatological preparations.

6. A cosmetic, dermatological, hygienic or pharmaceutial dosage form comprising at least one of the polymers prepared by a process as claimed in claims 1 to 3 in addition to conventional excipients.

7. Graft copolymers of polyvinyl esters obtainable by polymerization of

a) at least one vinyl ester of aliphatic C_1-C_{24}-carboxylic acids in the presence of

b) polyethers which are solid at room temperature and have the general formula I



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R^2 to R^7

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R^9 C_1-C_{24}-alkyl;

R^{10} hydrogen, C_1-C_{24}-alkyl, R^9-C(=O)-;

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n 1 to 8;

s 0 to 500;

t 1 to 12;

u 1 to 5000;

v 0 to 5000;

w 0 to 5000;

x 1 to 5000;

y 0 to 5000;

z 0 to 5000

c) and, where appropriate, at least one other monomer

using a free-radical initiator system, wherein liquid polyalkylene glycol is used as solvent for the free-radical initiator system.